IOWA STATE UNIVERSITY
Extension and Outreach

Iowa Farm Outlook

Department of Economics
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More Hogs, Higher Prices Reflect Strong Demand

Logic suggests that rising supplies pressure prices lower, all else equal. First quarter 2017 pork supplies ran 3% higher than a year earlier. Yet nationally, first quarter 2017 barrow and gilt carcass prices averaged $68.15 per cwt, up 8% compared to $63.13 per cwt for the same period in 2016. Higher prices in the face of rising supplies clearly indicate strong demand.

Strong domestic and international pork demand continues to support expansion. The challenge will be sustaining prices with the record large production again this year that USDA confirmed in its March Hogs and Pigs Report. For now, the market anticipates supply will align with pork demand such that prices will cover full cost of production.

The surprise in USDA's March report was quite possibly the lack of surprises. All of the numbers were within the range of the pre-release estimates by analysts, except producer reported June-August farrowing intentions. Analysts expected a slightly larger number for this first intentions estimate. However, second intentions have been higher than first intentions for several reports in a row. Second intentions are better forecasts of actual sows farrowing. This will be a key number to watch in the next report to see if producers may have become more optimistic about profit prospects and plan to increase sows farrowing.

The inventory of all hogs and pigs as of March 1 totaled a record for the quarter at 70.98 million head, up 4.2% from a year ago (Table 1). Slaughter numbers have run higher than expected in 2017 and USDA revised upward the size of the June-August 2016 pig crop by 1.2% to account for the heavier runs.

Table 1. USDA Quarterly Hogs and Pigs Report Summary

	United States			Iowa		
	2016	2017	2017 as % of '16	2016	2017	2017 as % of '16
Mar 1 inventory *						
All hogs and pigs	68,124	70,976	104.2	20,200	21,800	107.9
Kept for breeding	5,980	6,068	101.5	980	1,000	102.0
Market	62,144	64,908	104.4	19,220	20,800	108.2
Under 50 lbs	19,897	20,617	103.6	4,720	5,450	115.5
50-119 lbs	17,198	17,902	104.1	6,100	6,490	106.4
120-179 lbs	13,819	14,570	105.4	4,850	5,300	109.3
180 lbs and over	11,229	11,819	105.3	3,550	3,560	100.3
Sows farrowing **						
Dec - Feb	2,927	3,010	102.8	500	530	106.0
Mar - May [1]	2,968	3,010	101.4	500	520	104.0
Jun - Aug [1]	3,057	3,045	99.6	510	525	102.9
Dec - Feb pigs per litter	10.30	10.43	101.3	10.70	10.75	100.5
Dec - Feb pig crop *	30,139	31,400	104.2	5,350	5,698	106.5

Full report: http://usda.mannlib.cornell.edu/usda/current/HogsPigs/HogsPigs-03-30-2017.pdf
* 1,000 head; **1,000 litters; [1] intentions for 2017.

Just like the all hogs and pigs inventory, the number of market hogs as of March 1 was record large for the quarter at 64.91 million head; up 4.4% year-over-year. These are the market hogs arriving at processing plants from March to September this year.

A similar story unfolded for the breeding herd, which was up 1.5%, and the largest March 1 breeding inventory since 2008. Recognize that a 1.5% breeding herd rise results in an even greater expansion of pork production due to more pigs per litter, which have been record high in each of the last 10 quarters. Heavier market weights can also boost production, if the market provides incentives.

Some unevenness exists in the change in breeding herd numbers over the past year. One constant is that the Midwest states have collectively been the most aggressive in adding breeding inventory. For the 16 states that USDA estimates in the March report, the breeding herd was up 16% in Missouri, 8% in Illinois and Indiana, 5% in South Dakota, and 2% in Iowa compared to one year ago.

Iowa market herd surges

While the Iowa breeding herd growth was moderate, the market hog inventory was 8.2% higher than on March 1, 2016. The inventory of pigs under 50 pounds was 15.5% higher than one year ago. According to the National Direct Delivered Feeder Pig Report (NW_LS255), Iowa continues to be the primary destination for feeder pigs. Consistently 50% to 70% of feeder pigs crossing state lines end up in Iowa. That number has been above 70% at times as of late. Other individual states receive less than 10% of the weekly volume.

Commercial slaughter and price forecasts

Table 2 contains the Iowa State University price forecasts for the next four quarters and the quarterly average futures prices based on March 31, 2017 settlement prices. The futures price forecasts are adjusted for a historic Iowa/Southern Minnesota basis.

The table also contains the projected year over year changes in commercial hog slaughter. Market hog inventories indicate second quarter 2017 hog slaughter will be up 4.66% with the third quarter up 3.71%. Fourth quarter slaughter is projected up 3.80%, reflecting larger spring farrowings and more pigs per litter. Calendar year 2017 hog slaughter is forecast to be up almost 4.0%. Slaughter in the first quarter of 2018 will come from the at par intended summer farrowings. With more pigs per litter expected, first quarter 2018 slaughter is projected 1.14% larger.

Table 2. Commercial Hog Slaughter Projections and Lean Hog Price Forecasts, 2017-18

	Year-over-Year Change In Commercial Hog Slaughter (percent)	ISU Model Price Forecast, Negotiated IA/So MN ($/cwt)	CME Futures (03/31/17) Adjusted for Negotiated IA/So MN Basis ($/cwt)
Apr-Jun 2017	4.66	67-71	67.64
Jul-Sep 2017	3.71	68-72	68.66
Oct-Dec 2017	3.80	56-60	58.51
Jan-Mar 2018	1.14	59-63	61.41

Pork production is expected to have a similar year-over-year change as dressed weights are essentially projected to be unchanged compared to 2016 levels. Any incentive to feed hogs to heavier weights will likely be offset by stout packer demand for hogs keeping marketings current.

Market has firm underpinning

This additional production doesn't mean hog prices will plummet. To the contrary, lean hog futures prices have made impressive gains since hitting contract lows on October 5, 2016. February 2017 futures matured up more than $27 per cwt from the low and $9 per cwt higher than February 2016's final settlement. At the time of the

March Hogs and Pigs report, April, May, June, and July contracts were lower than final 2016 settlements for these contract months. However, August, October, and December contracts were higher; especially August and October.

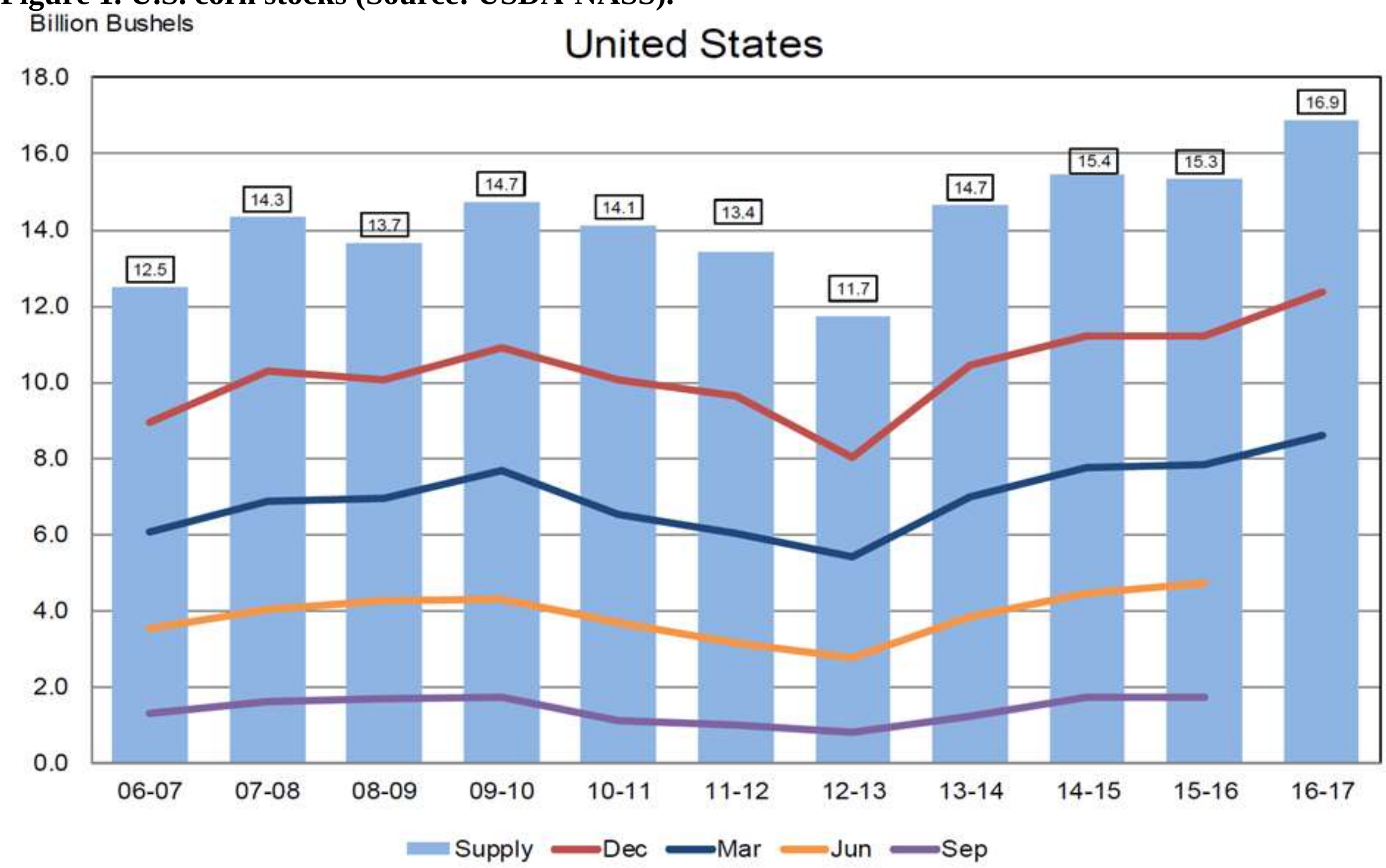
At this time of year, producers are reminded of the threat of higher feed prices if weather should turn harmful to growing crops. With current feed price prospects at some of the lowest levels in years, consider some coverage on new-crop feed supplies. The growing hog and pig inventory boosts feed demand.

Lee Schulz

Big Crops and Big Uncertainties

April began with a wealth of USDA reports, piles of crops still in storage, and mixed conditions across the Corn Belt. Let's start with the Grain Stocks report. USDA released the mid-marketing year update at the end of March. What they found in storage are significant and ample supplies of corn and soybeans. While crop usage has expanded to record levels, it has been matched (and arguably overmatched) by record crop production. March 1 corn stocks were estimated at 8.6 billion bushels. That's up 10 percent from last year, which is not surprising since last fall's crop resulted in the largest U.S. corn supply ever. Corn usage and disappearance remains strong as well, as the December to February corn disappearance also grew by 10 percent. But the end result is still a picture of building ending stocks for corn.

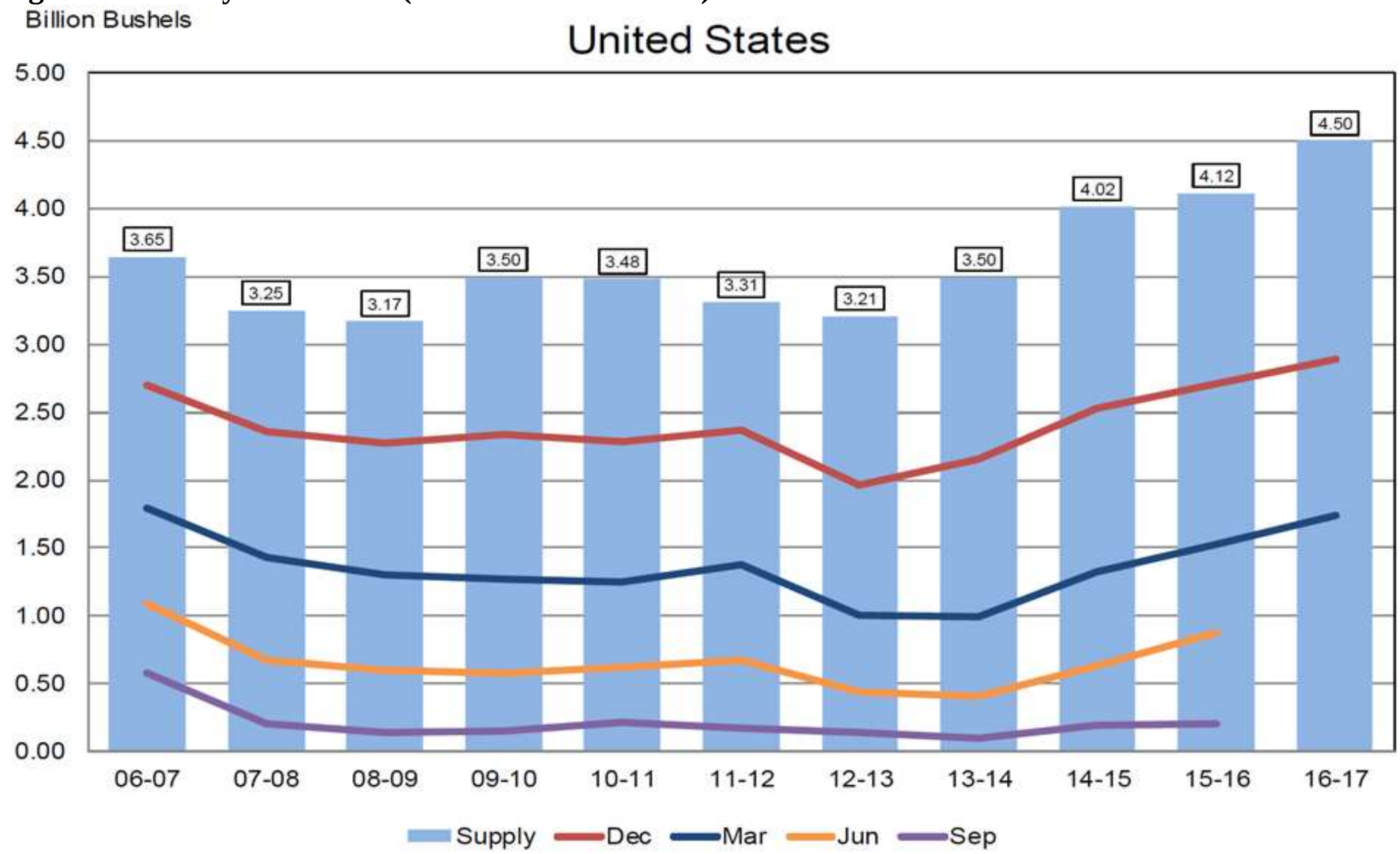
Figure 1. U.S. corn stocks (Source: USDA-NASS).



Farmers are holding relatively more of the corn crop than they did last year, but both on- and off-farm stocks are higher. In Iowa, 1 billion bushels remained on the farm as March 1st. That is 70 million bushels more than last year. Meanwhile, corn storage at Iowa's elevators and off-farm facilities increased by more than 110 million bushels, to 715 million bushels. These large stock levels in the state have pressured prices and kept basis wider than usual.

A similar story can be hold for soybeans. March 1st national soybean stocks were estimated at 1.73 billion bushels, up 13 percent from last year. Roughly 40 percent of the record soybean crop from last fall remains in storage. However, unlike corn, quarterly soybean usage and disappearance did not grow by a similar amount. December to February soybean disappearance actually fell 2 percent year-over-year to 1.16 billion bushels.

Figure 2. U.S. soybean stocks (Source: USDA-NASS).

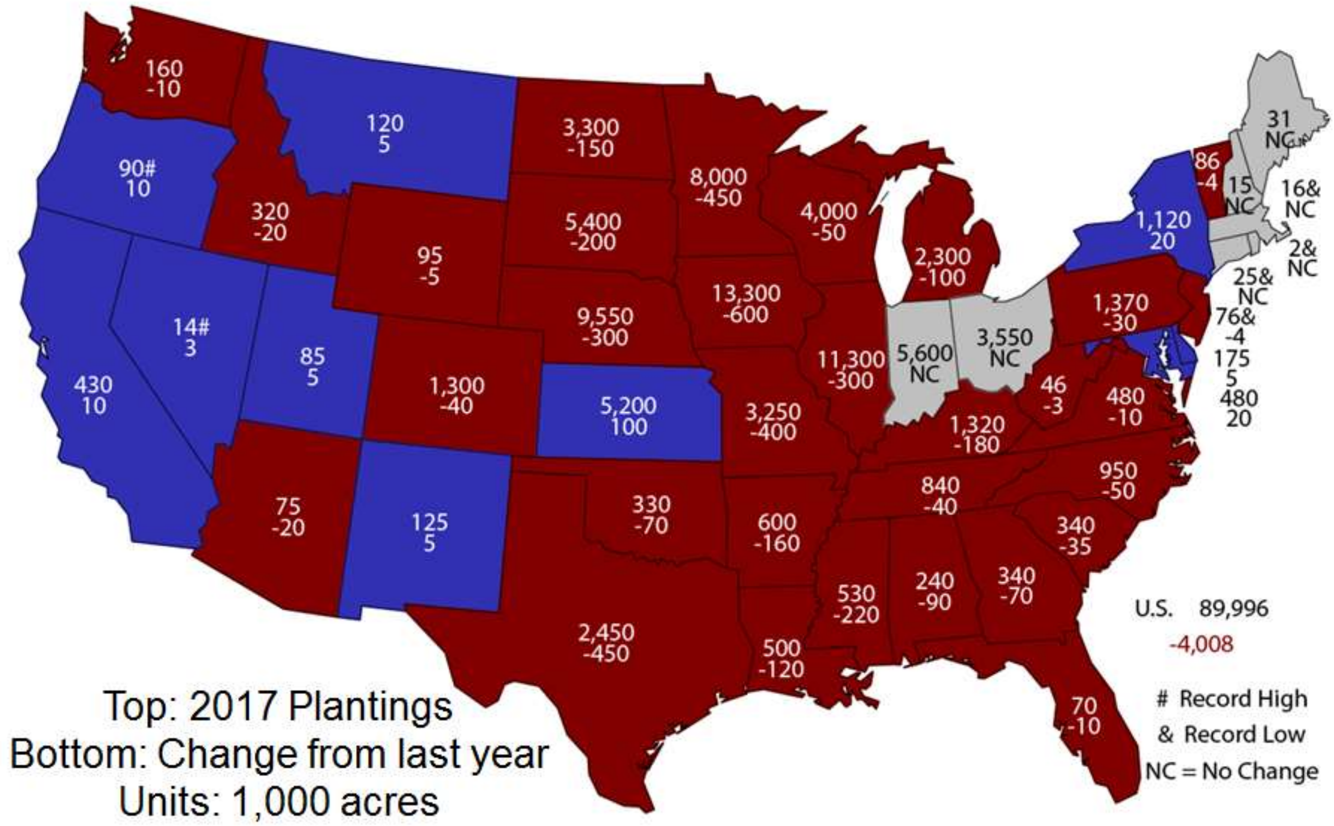


On-farm soybean storage dropped by 8 percent, while off-farm storage increased by 33 percent. Iowa bucked the national trend in that Iowa's total soybean stocks fell by 6 percent. On-farm soybean stocks in Iowa dropped 40 million bushels, while off-farm stocks increased by roughly 20 million. So, in general, old crop supplies remain burdensome.

The end of March also brought us the Prospective Plantings report. That report highlighted some major acreage shifts across the country. Last fall's winter wheat seedings declined by 3.4 million acres. Combined with projected reductions in spring wheat area, total wheat plantings are estimated at 46.06 million acres, which would be the lowest level since the USDA began tracking in 1919. But wheat was not the only crop to give up some area this spring. Farmers also indicated a 4 million acre decline in corn plantings. As the map below shows, farmers in many states are backing off on corn. Out of the major corn-producing states, only Kansas is projected to add corn area. Indiana and Ohio are expected to plant approximately the same amount. Iowa producers are transferring 600,000 acres from corn. Minnesota and Texas farmers are switching 450,000 acres each away from corn. And that's on top of 100,000+ acre shifts away from corn in North Dakota, South Dakota, Nebraska, Missouri, Arkansas, Louisiana, Mississippi, Kentucky, Illinois, and Michigan.

The reduced corn plantings translate into smaller corn crop projections for 2017, but the projections are still quite large. Given trend yields in the 170-171 bushel per acre range, 2017 corn production would be roughly 14 billion bushels. That's over 1 billion bushels less than last fall's crop, but it's also still the 3rd largest corn crop we have ever had, trailing only the 2014 and 2016 crops. The good news for right now is that this projected corn production is less than projected 2017 corn usage from USDA's Ag Outlook Forum. So supplies may slow down enough to allow demand to catch up.

Figure 3. U.S. projected corn acreage (Source: USDA-NASS).



With wheat and corn giving up acreage, cotton and soybeans stand to be the crops gaining land. Cotton acreage is projected to increase by over 2 million acres or 21 percent, with over 1 million of that occurring in Texas. But soybeans are expected to be the major land recipient, with roughly 6 million more acres. That would put soybeans on 89.5 million acres, just a half-million below corn. 12 states are planting record levels, including all of the Great Plains states, with the exception of Texas. The northern and eastern Corn Belt states are also planting record amounts. Kansas and North Dakota are showing the largest shifts from wheat and corn to soybeans, with Kansas moving 950,000 acres and North Dakota 850,000 acres into soybeans. Iowa, Minnesota, and Nebraska are each bringing over a half-million acres to soybeans. There are also significant soybean gains in the Mississippi Delta.

But the record acreage may not translate into a record soybean crop. Given trend yields of 48 bushels per acre, projected 2017 soybean production would be 4.25 billion bushels. That's 57 million bushels less than last fall's crop, but 45 million bushels above USDA's first estimate for 2017 soybean usage. So unlike corn, soybean supplies are expected to continue to exceed demand.

As input costs have come down and cash rents have moderated, the projected margin situation at planting time has improved in comparison to the last couple of years. Futures prices through January and February pointed to positive margins for both crops. But as the markets prepared for the March reports, both crops suffered setbacks. Following the release of the reports, corn prices have basically held their ground, but soybean prices have continued to slide. The additional acreage and the slowdown in usage have troubled the soybean trade. Futures prices as of April 7 point to corn margins around $30 per acre, while soybean margins have slipped back below breakeven.

Figure 4. U.S. projected soybean acreage (Source: USDA-NASS).

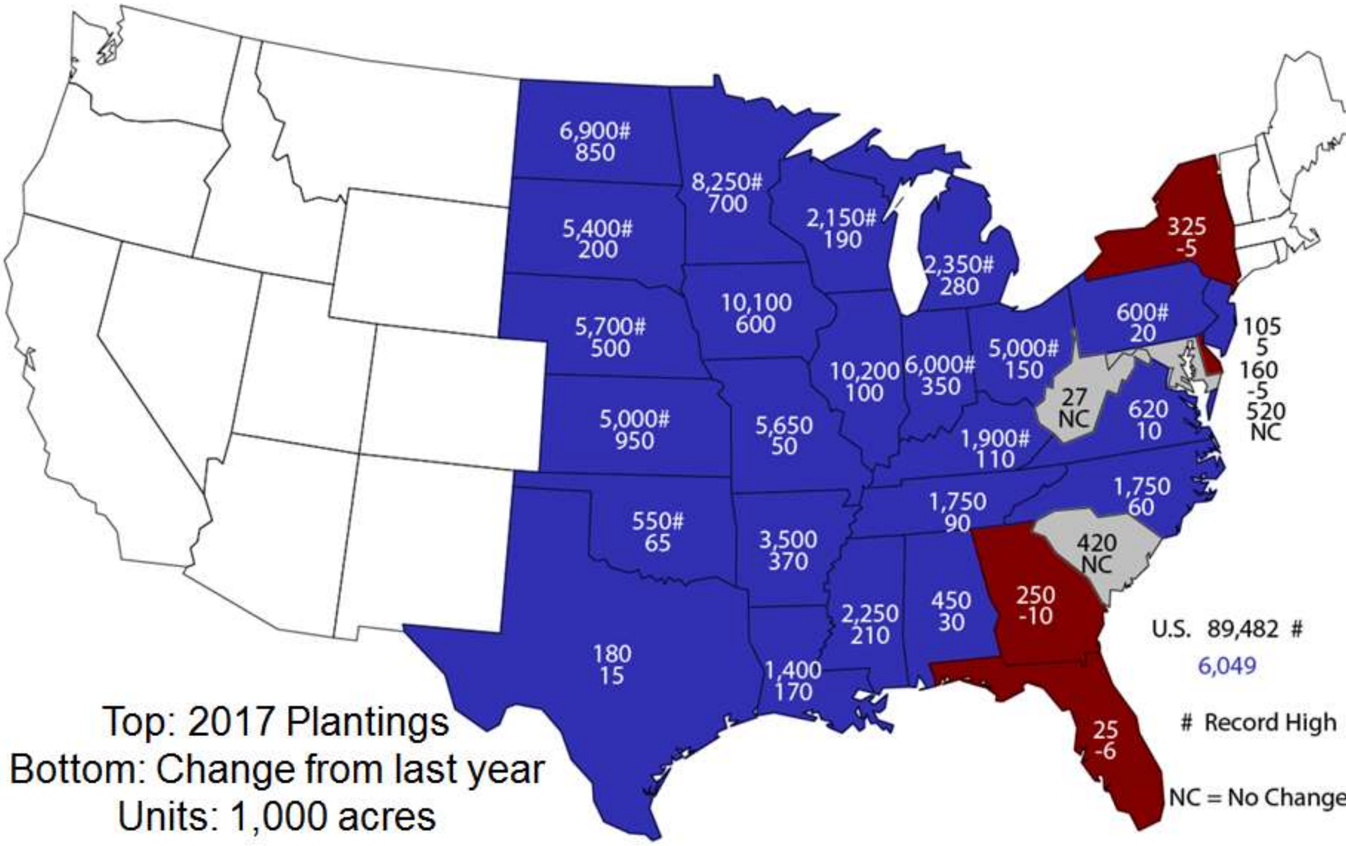
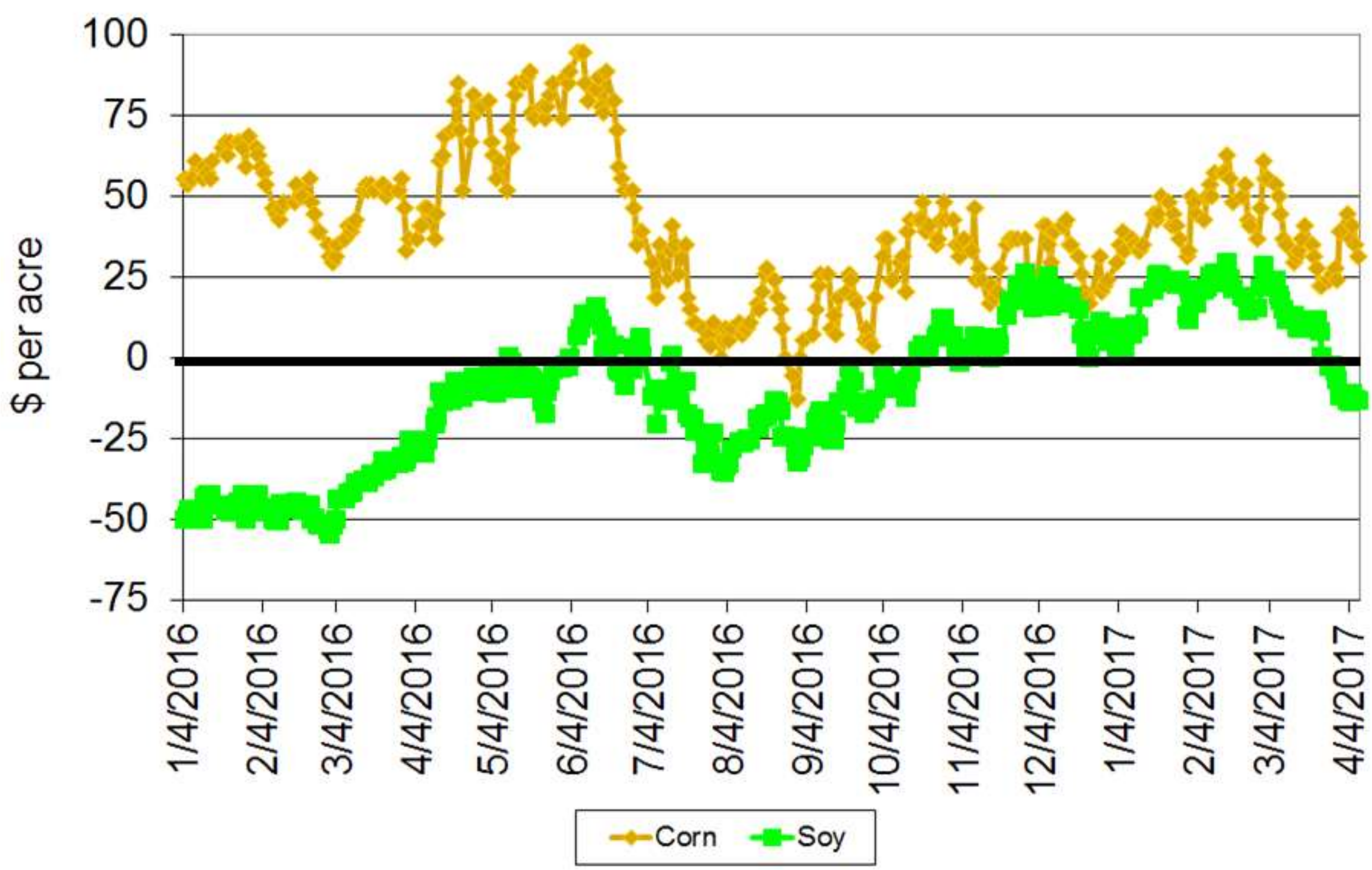


Figure 5. 2017 projected crop margins.



Over the past couple of years, prices have followed a traditional spring rally, driven by strong crop demand and some planting/weather concerns. Farmers are hoping for the same type of rally later this spring. Export sales have remained well ahead of last year's pace. Feed demand is building with meat production projected to be a record in 2017. And biofuel production has churned through sizable amounts of corn and soybeans. So the crop demand is currently there. But there are concerns, especially on the export front with the rhetoric about trade agreements, renegotiations, and bans. And planting conditions are yet to be determined. But the northern 2/3rd of Iowa have plenty, if not too much, moisture to work with. Southeastern Iowa, on the other hand, remains under slight drought conditions. So the factors are there, but only time will tell if they're strong enough to provide another price run. If so, the rally should provide some decent pre-harvest marketing opportunities.

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